

S/057/62/032/011/011/014

B104/B102

The kinetic theory of overcondensation ...

$$n = \int f dv; \quad n u = \int f v dv; \quad \frac{3nT}{m} = \int (v - u)^2 f dv, \quad (4).$$

Here  $t$  is the relaxation time,  $v$  the velocity of the gas molecules,  $M$  their mass,  $n$  the vapor density, and  $T$  the vapor temperature in erg. It is assumed that all molecules of vapor reaching a surface adhere to it and that the molecules leaving surface have a Maxwellian distribution. This implies that the distribution function

$$\left. \begin{array}{l} f(x, v) = f^+(x, v) + f^-(x, v), \\ f^+(x, v) = 0; \quad v_x < 0, \\ f^-(x, v) = 0; \quad v_x > 0. \end{array} \right\} \quad (5)$$

has the boundary conditions

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The kinetic theory of overcondensation ...

$$\left. \begin{aligned} f^+ \left( -\frac{d}{2}, v \right) &= \frac{p_1}{T_1} \left( \frac{m}{2\pi T_1} \right)^{1/2} \exp \left( -\frac{mv^2}{2T_1} \right), \\ f^- \left( \frac{d}{2}, v \right) &= \frac{p_2}{T_2} \left( \frac{m}{2\pi T_2} \right)^{1/2} \exp \left( -\frac{mv^2}{2T_2} \right), \end{aligned} \right\} \quad (6).$$

$p_1$  and  $p_2$  are the vapor pressures at the temperatures  $T_1$  and  $T_2$ . For the case of small temperature differences  $((T_1 - T_2)/T_1 \ll 1)$  the solution of (2) can be obtained in the form

$$\left. \begin{aligned} f &= n_0 \left( \frac{m}{2\pi T_0} \right)^{1/2} \exp \left( -\frac{mv^2}{2T_0} \right) (1 + \varphi), \\ n &= n_0 (1 + \varphi), \\ T &= T_0 (1 + \theta), \end{aligned} \right\} \quad (7),$$

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where  $n_0$  is the mean density and  $T_0$  the mean temperature. On introducing the dimensionless coordinate  $z = x/(d/2)$ , where  $d$  is the distance between the plate surfaces, the system (2)-(4) becomes linearized and gives:

$$\mu \frac{dp}{dz} = -\varphi + -2c_1 q + \left(c^2 - \frac{3}{2}\right) 0 \quad (9)$$

$$\left. \begin{aligned} c &= \sqrt{\frac{m}{2T_0}} v, \quad v = \pi^{-1/2} \int e^{-c} \varphi dc; \\ q &= \pi^{-1/2} \int c_1 e^{-c} \varphi dc; \quad 0 = \frac{2}{3} \pi^{-3/2} \int \left(c^2 - \frac{3}{2}\right) e^{-c} \varphi dc; \\ v &= \frac{1}{2} \sqrt{\frac{2T_0}{\pi}} \end{aligned} \right\} \quad (10).$$

The linearized boundary conditions are

$$\left. \begin{aligned} \varphi(-1, c) &= \left(c^2 - \frac{3}{2}\right) 0_1, \\ \varphi(1, c) &= v_2 + \left(c^2 - \frac{3}{2}\right) 0_2, \end{aligned} \right\} \quad (11)$$

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The kinetic theory of overcondensation ...

$$v_1 = \frac{p_1}{n_0 T_1} - 1; v_2 = \frac{p_2}{n_0 T_2} - 1; \theta_1 = \frac{T_1}{T_0} - 1; \theta_2 = \frac{T_2}{T_0} - 1. \quad (12).$$

From (9) the formal solution is reached:

$$\varphi^*(z, c) = \frac{1}{\mu c_s} \int_{-1}^{z'-z} e^{\mu c_s s} \left[ v + 2c_s q + \left(c^2 - \frac{3}{2}\right)\theta \right] \times \\ \times dz' + e^{-\frac{1+s}{\mu c_s}} \varphi^*(-1, c), \quad (13).$$

When this is introduced in (10) the following system of integral equations is obtained for determining  $v$ ,  $q$  and  $\theta$ : *✓*

$$\left. \begin{aligned} (\hat{K}_{11} - 1)v + \hat{K}_{12}q + \hat{K}_{13}\theta &= -P_1, \\ \hat{K}_{21}v + (\hat{K}_{22} - 1)q + \hat{K}_{23}\theta &= -P_2, \\ \hat{K}_{31}v + \hat{K}_{32}q + (\hat{K}_{33} - 1)\theta &= -P_3, \end{aligned} \right\} \quad (14).$$

The integral operators  $\hat{K}_{ij}$  are discussed. For the case of large Knudsen numbers the solutions arrived at:

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The kinetic theory of overcondensation ...

$$\begin{aligned}
 v(z) &= v_x + \frac{1}{2\sqrt{\pi}} \left[ (v_1 - v_2) - \frac{1}{2} (\theta_1 - \theta_2) \right] \times \\
 &\quad \times \left[ \frac{1+z}{\mu} \ln \frac{1+z}{\mu} - \frac{1-z}{\mu} \ln \frac{1-z}{\mu} \right], \\
 q &= q_x \left( 1 + \frac{2}{\sqrt{\pi} \mu} \right) - \frac{v_1 - v_2}{2\mu}, \\
 \theta(z) &= \theta_x - \frac{1}{6\sqrt{\pi}} \left[ (v_1 - v_2) - \frac{5}{2} (\theta_1 - \theta_2) \right] \times \\
 &\quad \times \left[ \frac{1+z}{\mu} \ln \frac{1+z}{\mu} - \frac{1-z}{\mu} \ln \frac{1-z}{\mu} \right], \\
 \tau &= \frac{1}{2} (v_x + \theta_x), \\
 \omega &= \omega_x - \frac{3}{2} q_x \left( 1 - \frac{8}{3\sqrt{\pi} \mu} \right) - \frac{3}{4\mu} [(v_1 - v_2) + (\theta_1 - \theta_2)]. 
 \end{aligned}
 \tag{24}$$

for small Knudsen numbers the solutions are:

$$\begin{aligned}
 q &= 0.252 (v_1 - v_2 + \theta_1 - \theta_2), & \tau &= 0.23 (v_1 - \theta_1) - 0.27 (v_2 - \theta_2). \\
 \omega &= 0.63 (v_1 - v_2 + \theta_1 - \theta_2),
 \end{aligned}
 \tag{31}.$$

SUBMITTED: January 31, 1962 (initially)  
                  April 10, 1962 (after revision)

Card 6/6

L 32190-66 EWT(1)

LIP(c)

AT

ACC NR: AP6013932

SOURCE CODE: UR/0207/66/000/002/0119/0121

AUTHOR: Zhvaniya, I. A. (Sukhumi); Kucherov, R. Ya. (Sukhumi); Rikenglaz, L. E.  
(Sukhumi)

55

B

ORG: none

TITLE: Stability of a nonhomogeneous electron beam

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 2, 1966, 119-121

TOPIC TAGS: electron beam, plasma instability, perturbation

ABSTRACT: The authors consider development of perturbation in a nonhomogeneous periodic electron beam to determine whether plasma instability in a limited space is an absolute or a convective process. Theoretical expressions are derived for the perturbations in the electron beam in terms of the density, velocity, charge and mass of the electrons, ion density and potential. The criterion for determining whether the perturbation will increase or decrease is discussed. It is shown that the increment in perturbation is proportional to the square of the amplitude for weak disturbances.  
Orig. art. has: 15 formulas.

SUB CODE: 20/

SUBM DATE: 25Feb65/

ORIG REF: 003/

OTH REF: 005

Card 1/1

L 5392-66 EPF(n)-2/EPA(w)-2/EWT(l)/ETC/EWG(m) IJP(c) AT

ACC NR: AP5027266

SOURCE CODE: UR/0207/65/000/005/0023/0027

AUTHORS: Kucherov, R. Ya. (Sukhumi); Rikenglas, L. E. (Sukhumi)

ORG: none

TITLE: On the periodic structure of steady state rarefied plasma

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1965, 23-27

TOPIC TAGS: rarefied gas, rarefied plasma, gas kinetic equation, periodic motion, ion density, electron density

ABSTRACT: The criteria for obtaining a spatially periodic solution to a self-consistent rarefied plasma problem up to zeroth approximation in  $L/l$  is studied. The plasma is assumed to be contained in a diode (no magnetic fields) with a periodic structure as shown in Fig. 1. The electron and ion distribution functions are represented by the integrals

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6701 12/91

L 5392-66

ACC NR: AP5027266

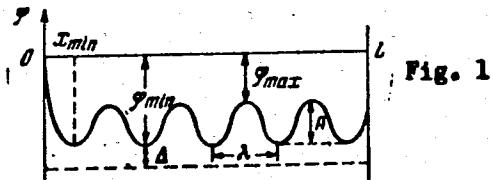


Fig. 1

$$\rho_e(x) = \frac{1}{\sqrt{2m_e}} \left[ \int_{-\infty \min}^{\infty} [f_{ee}^+(e) + f_{ee}^-(e)] \frac{de}{\sqrt{e+e\varphi}} + \right. \\ \left. + \int_{-\infty}^{-\infty \min} [f_{ee}^+(e) + f_{ee}^-(e)] \frac{de}{\sqrt{e+e\varphi}} \right]$$

$$\rho_i(x) = \frac{1}{\sqrt{2m_i}} \left[ \int_{-\infty \max}^{\infty} [f_{ie}^+(e) + f_{ie}^-(e)] \frac{de}{\sqrt{e-e\varphi}} + \right. \\ \left. + \int_{-\infty}^{-\infty \max} [f_{ie}^+(e) + f_{ie}^-(e)] \frac{de}{\sqrt{e-e\varphi}} \right]$$

for  $x > x_{\min}$  where  $\Sigma_{1,e}$  are the ion and electron energies. The following

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the necessary conditions for a periodic solution are given by

$$\varphi'|_{\varphi=\varphi_{\min}} > 0, \varphi'|_{\varphi=\varphi_{\max}} < 0,$$

It is shown that the boundaries for a periodic solution of the above problem are set by the inequalities  $c > 2b$  and  $c > 1/2b$ . Orig. art. has: 20 equations and 4 figures.

SUB CODE: ME, HP SUBM DATE: 05Jan65/ ORIG REF: 001/ OTH REF: 004

Card 4/4 R.S.

L 5392-66

ACC NR: AP5027266

variable is introduced  $\epsilon = \epsilon_{\text{c}} \pm \epsilon\varphi$ , and it is assumed that  $\varphi_{\text{max}} - \varphi_{\text{min}}$  is small. The density distribution functions are then expanded in powers of  $(\varphi_{\text{max}} - \varphi_{\text{min}})^{1/2}$  to yield

$$\rho_e = \frac{1}{\sqrt{m_e}} \left\{ \int_0^{\infty} f_{e0}(t^2 - \epsilon\varphi_k) dt + e(\varphi_k - \varphi_{\text{min}}) \int_0^{\infty} \left[ \frac{\partial f_{e,c}(t)}{\partial t} \right]_{\epsilon_0} dt + \right. \\ \left. + \sqrt{e(\varphi - \varphi_{\text{min}})} F_e(-\epsilon\varphi_k) \right\} \quad (\epsilon_0 = t^2 - \epsilon\varphi_k)$$

$$\rho_i = \frac{1}{\sqrt{m_i}} \left\{ \int_0^{\infty} f_{i0}(t^2 + \epsilon\varphi_k) dt + e(\varphi_{\text{min}} - \varphi_k) \int_0^{\infty} \left[ \frac{\partial f_{i,c}(t)}{\partial t} \right]_{\epsilon_0} dt + \right. \\ \left. + \sqrt{e(\varphi_{\text{max}} - \varphi)} F_i(\epsilon\varphi_k) \right\} \quad (\epsilon_0 = t^2 + \epsilon\varphi_k)$$

where  $F_e$  and  $F_i$  are the difference in distribution functions of trapped and untrapped particles near the edge of the potential well. These values are substituted in the Poisson's equation, and the results are integrated to give

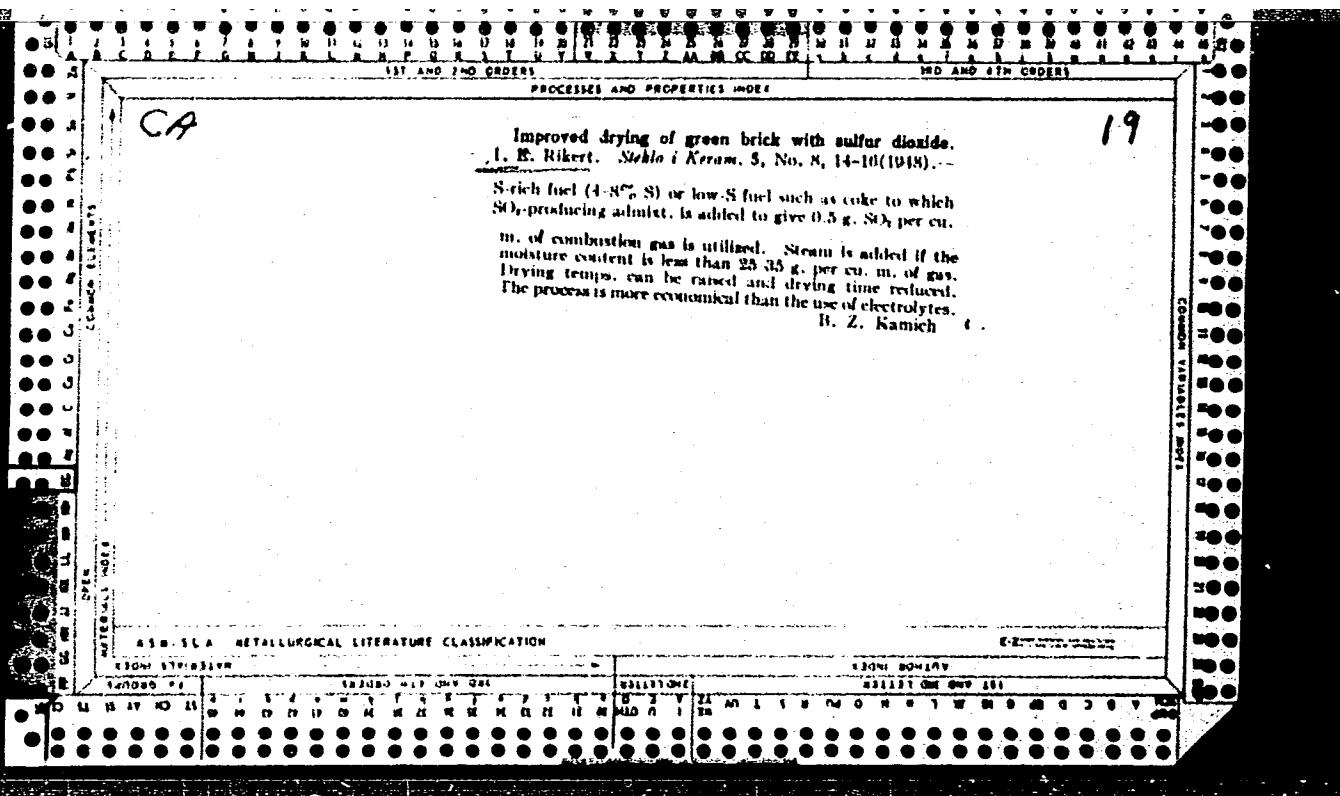
$$A'^k = A_0'^k \Delta, \quad A_0'^k = -\frac{3}{2} \frac{a}{b+c} (b+c \neq 0, \text{ sign } a = -\text{sign } (b+c))$$

where  $A = \varphi_{\text{max}} - \varphi_{\text{min}}$ . A similar expression is obtained for the wavelength, and

Card 3/4

RIKENGIAZ, L.E.

Unstable states of a Knudsen plasma. Zhur. tekhn. fiz. 33  
no.10:1214-1221 0 '63. (MIRA 16:11)



**Improved drying of green brick with SO<sub>2</sub>.** J. E. RIKKEL.  
*Stekels Keram.*, 5 [8] 14-16 (1948). Sulfur rich fuel (1 to 8% S) or low-sulfur fuel such as coke to which a SO<sub>2</sub> producing admixture is added to give 0.5 gm. of SO<sub>2</sub> per m<sup>3</sup> of combustion gas is utilized. Steam is added if the moisture content is less than 25 to 35 gm. per m<sup>3</sup> of gas. Drying temperatures can be raised and drying time reduced. The process is more economical than the use of electrolytes. B.Z.K.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0014449

C#

18

Control of the process of lime slaking. P. E. Rikert  
(Tagistrol). *Zavodskaya Lab.* 16, 233-4 (1950).—The  
sample is dehydrated by 4-fold agitation with abs. EtOH,  
dried at 140–30°, powdered rapidly and exposed to H<sub>2</sub>O  
vapor at 250° 2–3 hrs., redried at 250°, and reweighed.  
The wt. gain is the amt. of H<sub>2</sub>O used in the completion of  
slaking of unreacted CaO and MgO. G. M. K.

BEREZIN, N. N.; RIKERT, P. E.

P. E. Rikert

"Chlorination of mortar mixtures for construction work in winter." Stroi. prom. 31,  
no. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

ACS

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Method of controlling the slaking of lime. P. E. RIKERT  
*Zaridzhayu Lab.*, 16 [2] 233-34 (1950).—Dehydrate the cement  
slurry by agitating four times with 4-fold amount of absolute  
alcohol, followed by centrifuging after each agitation. Dry  
at 140° to 150°C. in a stream of air free of CO<sub>2</sub> and water vapor.  
grind rapidly, and dry at 250° to constant weight. Expose to  
water vapor at 250° to complete the slaking in 2 to 3 hr. and again

bring to constant weight at 250°. The increase in weight is the amount of water  
used to complete the slaking of unreacted MgO and MnO. The sensitivity of the  
method as can be improved by using only the coarse fraction of the slurry  
( 0.18 mm.). The method was successfully incorporated in plant control work.  
B Z.K.

RIKERT, F. E.

DAS CHLOREN DER BINDEFITTEL FÜR WINTERBAUTEN. VON N. N. BEREZIN UND F. E. RIKERT.  
BERLIN, TECHNIK, 1953. 76 P. ILLUS., DIAGRS., TABLES (SCHRIFTENREIHE DES  
VERLAGES TECHNIK, BD. 179) TRANSLATION FROM RUSSIAN. "LITERATURNACHWEIS": P. 76.

SO: N/5  
748.2  
.B4

BEREZIN, N. N.; RIKHET, P. Ye.

Berezin, N. N.

Chlorination of mortars intended for construction work in winter. Stroi. zhurn., No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

Riha, J.

SLEVARENSTVI  
Nr 1, Vol 6, 1958

J. Riha - J. Skála: Immersion Measurement of the Bath Temperature in Steel-Work Furnaces .....  
Immersion Measurement of the Bath Temperature in Steel-Work Furnaces 8

The authors deal with immersion measurements using thermocouples of metal melt temperatures in steel-work furnaces and describe in the first place the practical experience gained in the steel foundry of V. I. Lenin Works in Plzeň. On the basis of operational research, the range of suitable casting temperatures for different steel grades was determined. In open-hearth furnaces it was found that it is suitable to determine the temperature before the beginning of the deoxidation in the furnace, and then shortly before the tapping of the melt. In electric arc furnaces usually one temperature determination will be sufficient, i. e. in the reduction period.

L 41598-65 EWT(1)/EPF(n)-2/EWG(m)/EPA(w)-2/EEC(t)/EWA(m)-2 Pz-6/Po-4/  
Pab-10/Pi-4 IJP(c) W/W/AT

ACCESSION NR: AP5006500

57  
57  
B  
S/0056/65/048/002/0514/0525

AUTHOR: Lovetskiy, Ye. Ye.; Rikhadze, A. A.

TITLE: Acceleration of electrons in a plasma situated in a strong electric field

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 2, 1965,  
514-525

TOPIC TAGS: plasma electron acceleration, plasma stability, plasma current,  
plasma electric field interaction, betatron

ABSTRACT: The article deals with the behavior of a rarefied plasma in a homogeneous and constant electric field and the various instabilities that hinder the acceleration of its electrons. Special attention is paid to the deceleration of the electron by two-stream instability and to the conditions under which the electrons can jump through the region where the plasma is unstable against potential oscillations. Expressions are derived for the time variation of small plasma disturbances, and the conditions under which the initial small disturbances (thermal noise) in the plasma practically do not grow with time, so that electron

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ACCESSION NR: AP5006500

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runaway is possible. The feasibility of a stable strong-current gas betatron is discussed and it is estimated that electrons with density  $10^{10}$ -- $10^{11}$  cm $^{-3}$  can be accelerated in such a betatron to energies close to 10 MeV by electric fields of  $10^2$ -- $10^3$  V/cm, the resultant currents reaching several kiloamperes. "The authors thank V. P. Silin, I. S. Danilkin, and A. M. Stefanovskiy for valuable remarks and stimulating discussions." Orig. art. has: 31 formulas.

ASSOCIATION: None

SUBMITTED: 09Jun64

ENCL: 00

SUB CODE: ME ,NP

NR REF Sov: 008

OTHER: 002

mle  
Card 2/2

SHABD, V.

Bilgari, V., and Seleznev, N. "Geophysical Methods of Exploration and Their Applicability to the Search of Metallic Ores in the Conditions of the Region of Marya." Kolymsk, Rayzdat, No. 1, 1937, p. 32-43.

RIKHILADZE, G.I.

Blood coagulation and prevention of infarcts in the clinical treatment of mitral stenosis. Terap.arkh. 33 no.2:40-49 F '61.  
(MIRA-14:3)  
1. Iz terapevticheskogo otdeleniya (zav. - prof. A.G. Gukasyan)  
61-y gorodskoy klinicheskoy bol'nitsy Moskvy.  
(MITRAL VALVE--DISEASES) (HEART--INFARCTION)  
(BLOOD--COAGULATION)

RIKHIREV, T.

Rationalization work must be equal to the new tasks. Fin.  
SSSR 20 no.10:56-59 0 '59. (MIRA 12:12)  
(Finance)

RIKHIREV, T.; TARAN, M.

For developing efficiency work further. Fin. SSSR 37 no.11:  
13-18 N'63. (MIRA 17:2)

RIKHIREV, T.

More attention to efficiency work, Fin. SSSR 19 no.3:26-30 Mr '58.  
(MIRA 11:5)

(Finance)

RIKHTEVA, L.I., GRIBOVA, S.P., KAYUSHIN, D.P., UMRIKHINA, A.V.;  
KRASNOVSKIY, A.A.

Observation of the electron paramagnetic resonance in the  
triplet state of chlorophyll. Dokl. AN SSSR 159 no.1:196-  
197 N '64. (MIRA 17:12)

1. Institut biologicheskoy fiziki AN SSSR i Institut biokhimii  
im. A.N. Bakha AN SSSR. 2. Chlen-korrespondent AN SSSR (for  
Krasnovskiy).

RIKHIREVA, G.T.; UMRIKHINA, A.V.; KAYUSHIN, L.P.; KRASNOVSKIY, A.A.

Formation of triplet and radical states of porphyrin and its derivatives.  
Dokl. AN SSSR 163 no.2:491-494 Jl '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR i Institut biokhimii im.  
A.N.Bakha AN SSSR. 2. Chlen-korrespondent AN SSSR (for Krasnovskiy).

ACCESSION NR: AP4041408

S/0020/64/156/006/1451/1454

AUTHOR: Rikhireva, G. T.; Krasnovskiy, A. A. (Corresponding member, AN SSSR)

TITLE: Relationship between the chlorophyll state and EPR spectra of plant leaves

SOURCE: AN SSSR. Doklady\*, v. 156, no. 6, 1964, 1451-1454

TOPIC TAGS: chlorophyll aggregation state, chlorophyll EPR, photosynthesis, plant pigments, luminescence spectra, chlorophyll luminescence spectra, shortwave chlorophyll, longwave chlorophyll, etiolated plants, chlorophyll formation

ABSTRACT: The present study was undertaken to establish whether variations in the aggregation state of chlorophyll are reflected in the EPR spectra and to contribute to the knowledge of the participation of various components of the plant pigment system in photosynthesis. Two types of experiments were performed: 1) the EPR spectra of greening etiolated leaves were studied, and 2). the same spectra in leaves whose chlorophyll had been changed (e.g., by

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heating or swelling in a solvent such as pyridine) were investigated. The EPR and luminescence spectra obtained were also compared. The experimental data indicate that a close relationship exists between the state of chlorophyll, the type of corresponding EPR signal, and the kinetics of the change in this signal, both under illumination and in the dark. Comparison of the EPR and luminescence spectra indicates that the so-called "shortwave" form of chlorophyll is predominant in the etiolated greening leaves, while the "longwave" form accumulates in the green leaves, producing a type of kinetics of the signal change which is characteristic of the green plant. The study was conducted at the Institute of Biophysics and the Institute of Biochemistry im. A. N. Bakh, Academy of Sciences SSSR. Orig. art. has: 3 figures.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biological Physics, Academy of Sciences, SSSR); Institut biohimii im. A. N. Bakha Akademii nauk SSSR (Institute of Biochemistry, Academy of Sciences, SSSR)

SUBMITTED: 14Mar64 ATD PRESS: 3052 ENCL: 00  
SUB CODE: LS NO REF Sov: 007 OTHER: 0005

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L 13764-65 EWT(m) Pb-4/Pa-4 ASD(a)-5/SSD/AS(MD)-2/AFWL/RAEM(C)/RAEM(1)/ESD(GS)/  
ACCESSION NR: AP4049143 ESD(t) RM S/0020/64/159/001/0196/0197

AUTHOR: Rikhireva, G. T.; Gribova, Z. P.; Kayushin, L. P.; Umrikhina, A. V.; Krasnovskiy, A. A. (Corresponding member AN SSSR) B

TITLE: Observation of the electron paramagnetic resonance of the triplet state of chlorophyll

SOURCE: AN SSSR. Doklady\*, v. 159, no. 1, 1964, 196-197

TOPIC TAGS: chlorophyll, chlorophyll free radical, chlorophyll triplet state, EPR, porphyrin triplet state, electron transfer, photo-reduction, photooxidation

ABSTRACT: A study was conducted for the purpose of establishing the existence of the triplet state of chlorophyll under illumination. Frozen (at 77K) chromatographically pure chlorophyll solutions in ethanol ( $10^{-4}$  to  $10^{-3}$  M) were investigated; chlorophyll a+b, a, and b were used. A DRSh-1000 mercury quartz lamp with BS-8 light filter (transmittance over 370 mm), or a BKsSh-1000 xenon lamp with BS-10 filter (transmittance over 580 mm) were used as light sources. Heat was

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eliminated by a water filter. The light intensity was regulated by metal wire-screen filters. Formation of the triplet state of chlorophyll was established in both cases, i.e., illumination in the entire visible range of the spectrum (BS-8 filter), and in red light only (BS-10 filter). The triplet state was indicated by the appearance of a singlet band in the EPR spectrum. The signal was produced by chlorophyll b; chlorophyll a produced no signal under similar conditions. The dependence of the yield of free radicals on the intensity of illumination was fairly closely expressed by a square function. It was assumed that the pigment produced free radicals as a result of either photooxidation (by residual oxygen) or photoreduction. Orig. art. has: 2 figures.

ASSOCIATION: Institut biologicheskoy fiziki Akademii nauk SSSR (Institute of Biophysics, Academy of Sciences, SSSR); Institut biokhimii im. A. N. Bakha Akademii nauk SSSR (Institute of Biochemistry, Academy of Sciences, SSSR)

SUBMITTED: 14Jul64

ENCL: 00

SUB CODE: LS, NP

NO REF SOV: 005

OTHER: 001

ATT PRESS: 3132

Card 2/2

RIKHIREVA, G.T.; KRASNOVSKIY, A.A.; KAYUSHIN, L.P.

Biophysics: Relation between the state of chlorophyll and  
electron paramagnetic resonance spectra in plant leaves.  
Dokl. AN SSSR 156 no.6:1451-1454 Je '64. (MIRA 17:8)

1, Institut biologicheskoy fiziki AN SSSR i Institut biohimii  
imeni A.N. Bakha AN SSSR. 2, Chlen-korrespondent AN SSSR (for  
Krasnovskiy).

— 1975, Fig. 82B (1), 6.1; 1976, Fig. 82B (1), 6.1.

the treatment of plant leaves, and the effect of  
oil repellent. *Biofertilizer* 2005, 8(4):459-462. (MTPA 1778)

Die Bezeichnung „Kreis“ für einen Kreis im Moskowitischen Sprachgebrauch ist eine Verkürzung des Begriffes „Kreisstadt“.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0014449

SOV/20-127-3-63/71

17(3)

AUTHORS:

Litvin, F. F., Krasnovskiy, A. A., Rikhireva, G. T.

TITLE:

Formation and Transformation of Proto-chlorophyll in Green Leaves of Plants

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 3, pp 699-701  
(USSR)

ABSTRACT:

It was proved that proto-chlorophyll is the immediate predecessor of chlorophyll with regard to the greening of etiolated leaves. The final stages of chlorophyll formation in the leaf are complicated processes; they include a number of intermediate stages of photo-chemical and fermentative types (Refs 1-6). Since all investigations with respect to the same subject were carried out with etiolated leaves grown from seeds in the dark the question arises whether proto-chlorophyll participates in the normal chlorophyll biosynthesis in plants grown in the light. It is difficult to solve this problem by the usual absorption methods of spectrophotometry because very small proto-chlorophyll quantities have to be determined against the background of high concentrations of the basic pigments of the leaf. For this reason the authors used the fluorescence spectra of the leaves with

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Formation and Transformation of Proto-chlorophyll  
in Green Leaves of Plants

SOV/20-127-3-63/71

profound cooling of the object. The device used is described in references 3 and 4. Green leaves of the 7 to 15-day-old bean plants of the type "Severnaya zvezda" grown under day-light luminescence lamps were used in the basic investigations. The leaves were pulverized in a mortar, the pigments extracted by 4-5 ml acetone (80%), and the extract filtered. Liquid nitrogen was used for cooling. Figure 1 shows the microspectrogram of the fluorescence of such an extract from plants which remained in the dark for 4 hours (Curve 1) and that recorded after an additional 15-minute exposure to light (Curve 2). Figure 2 shows the fluorescence spectrum of a bean leaf similarly treated. Figure 3 shows such a spectrum of the cooled leaf (see above). The formation of active proto-chlorophyll in the same leaves can be seen from table 1. The authors succeeded in proving the formation of active forms of proto-chlorophyll in green plants by measuring the fluorescence spectra of the leaf extracts with

Card 2/3

Formation and Transformation of Proto-chlorophyll  
in Green Leaves of Plants

SOV/20-127-3-63/71

profound cooling. By comparing the data obtained on the rate of proto-chlorophyll concentration with the data on the rate of chlorophyll restoration (by the isotope method (Ref 8)), it may be assumed that also active proto-chlorophyll forms take part in the chlorophyll biosynthesis of green leaves. There are 3 figures, 1 table, and 8 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: April 11, 1959, by A. N. Terenin, Academician

SUBMITTED: May 25, 1959

Card 3/3

LITVIN, F. F.; KRASNOVSKIY, A. A.; RIKHIREVA, G. T.

Fluorescence of different chlorophyll forms in plant leaves. Dokl.  
AN SSSR 135 no.6:1528-1531 D '60. (MIRA 13:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
i Institut biokhimii im. A.N. Bakha Akademii nauk SSSR.  
(CHLOROPHYLL) (FLUORESCENCE)

87416

17.1156  
5.4500

1206, 1273 only

S/020/60/135/006/034/037  
BO:6/B060

AUTHORS: Litvin, F. F., Krasnovskiy, A. A., and Rikhireva, G. T.

TITLE: Luminescence of Different Forms of Chlorophyll in Plant Leaves

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 6,  
pp. 1528-1531

TEXT: The authors report here on their study of the fluorescence spectra of plant leaves (beans, Phaseolus), and on the changes these spectra undergo as etiolated leaves turn green and because of the effect of disintegrating agents (pyridine). Measurements were made with an earlier described apparatus (Ref. 5). Fluorescence was excited by a mercury-quartz lamp in the 380 - 580  $\mu\text{m}$  range and taken by a photomultiplier with a recording attachment. Fig. 1 shows the effect of low temperatures ( $-196^{\circ}\text{C}$ ) upon the leaves spectra. This sort of cooling is said to considerably increase the quantum emission of fluorescence of such chlorophyll forms as have maxima in the ranges 693 - 696 and 730 - 740  $\mu\text{m}$ .

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Luminescence of Different Forms of  
Chlorophyll in Plant Leaves

S/020/60/135/006/034/037  
B016/B060

Fig. 2 shows curves of the effect of pyridine (10% aqueous solution) upon the spectra of leaves and homogenized mass of leaves (0.5 - 1% aqueous pyridine solution). Moreover, the effect of heating up to 100°C is shown here. Both the disintegrating agents and the high temperature disturb the native state of the pigment. In the authors' opinion, the mentioned actions lead to a rapid decrease of fluorescence intensity in the long-wave range (690 and 730 - 740 m $\mu$ ) as well as to a modification in the chlorophyll fine structure. It is therefore stated that the characteristics of low-temperature fluorescence spectra are bound to the native state of the pigment. The investigation was extended to the formation of various chlorophyll forms in various stages of the chlorophyll formation process on the basis of fluorescence spectra of greening etiolated leaves of the sorghum "Triumph" during the first 24 h. In early stages of chlorophyll concentration the fluorescence spectrum at -196°C very much resembles the "ordinary" spectrum of leaves of low chlorophyll content measured at room temperature (Fig. 3). With progress in chlorophyll concentration the spectrum changes gradually; longwave maxima of fluorescence appear and develop to prevail in the end. A structure which is typical of the low-temperature spectra of the green leaves appears at the same time. Fig. 4

Card 2/3

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Luminescence of Different Forms of  
Chlorophyll in Plant Leaves

S/020/60/135/006/034/037  
B016/B060

shows the changes in fluorescence intensity (at -196°C) of etiolated leaves as they turn verdant. Summing up: plants exhibit several fluorescence maxima of chlorophyll: 675, 682, 690-696, and 730 m $\mu$ , which visibly belong to different chlorophyll forms. The authors base on the type of dependence of the appearance of the fluorescence spectra on temperature, on the effect of disintegrating agents, and the chlorophyll amount, to believe that the longwave maxima 683 - 696 and 730 m $\mu$  belong to aggregated chlorophyll forms with a special type of molecular packing. There are 4 figures and 7 references: 4 Soviet and 3 US.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov). Institut biokhimii im. A. N. Bakha Akademii nauk SSSR (Institute of Biochemistry imeni A. N. Bakh of the Academy of Sciences USSR)

PRESENTED: August 27, 1960, by A. N. Terenin, Academician

SUBMITTED: August 20, 1960

Card 3/3

56-60 kg.), by ~~.....~~ (end over) long, by an average wool yield of ~~.....~~ by high meat and milk qualities. One sheep yields 40 kg. of milk on the average, per year.

RUKHLIN, L. L.

"How to attain healthy sound sleep," (Kak naladit' zdorovyy i rolnotsennyy son), Institute of Sanitation Education, Moscow, 1951.

KIRMAN, S.A. and MALINA, G.P.

Formation of crystals in bacteria cultures.

*Mikrobiologiya*. Vol. 21, p. 528. 1952,

RIKHSIEV, L.A.

Effect of the quantity of gamm globulin on the reaction results  
of immobilization of Spirochaeta pallida. Med. zhur. Uzb. no.10:  
38-39 '61. (MIRA 14:10)

1. Iz eksperimental'no-serologicheskoy laboratorii kafedry  
dermatovenerologii (zav. - prof. A.I.Kartamyshev) TSentral'nogo  
instituta usovershenstvovaniya vrachey, Moskva.  
(GAMMA GLOBULIN) (TREPONEMA PALLIDUM)

RIKHSIYEV, I.R.

Comparative electrophoretic study of protein fractions  
in sera which gave an either positive or negative result for  
the immobilization of Spirochaeta pallida and for the  
Wassermann's reaction. Med. zhur. Uzb. no.1:70-72 Ja '62,  
(MIRA 15:3)

1. Iz eksperimental'noy serologicheskoy laboratorii kafedry  
dermato-venerologii (zav. - prof. A.I. Kartamyshev) TSentral'nogo  
instituta usovershenstvovaniya vrachey.

(SERUM)

(BLOOD PROTEINS)  
(SYPHILIS--DIAGNOSIS--WASSERMANN REACTION)

RIKHSIYEV, A. Cand. Med. Sci. -o (diss) "Therapeutic physical exercises during non-specific lung diseases." Mos, 1958. 12 pp (Min of Health USSR. Central Inst for the Advanced Training of Physicians), 200 copies (KL, 52-58, 108)

-137-

RIKHTEL, V.A.

New and little-known fruit fly species (Diptera, Trypetidae) in the fauna of the U.S.S.R. Ent. oboz. 39 no. 2:893-896 '60. (MIRA 14:3)

1. Zoologicheskiy institut AN SSSR, Leningrad.  
(Fruit flies)

ACC NR: AP6031843

(N)

SOURCE CODE: JR/0375/66/007/0076/0083

AUTHOR: Dorofeyev, I. D. (Engineer; Rear Admiral); Bukin, P. Ye. (Engineer; Captain 2d Rank; Candidate of Technical Sciences); Klimenko, N. A. (Engineer; Captain 2d Rank); Rikhter, A. A. (Engineer; Captain 1st Rank Reserve; Candidate of Technical Sciences)

ORG: None

TITLE: Naval propulsion engineering during the years of Soviet power

SOURCE: Morskoy sbornik. no. 7, 1966, 76-83

TOPIC TAGS: marine engineering, marine engine, diesel engine, gas turbine engine, nuclear propulsion engine, engine performance characteristic, engine reliability

ABSTRACT: The status of propulsion machinery building, as a base for powerful propulsion installations, is of great significance for the building of a navy. The absence, in the past, of a strong machinebuilding base was the result of the dependence of the Russian fleet on foreign states for propulsion engineering. The main propulsion equipment for combatant ships was made abroad, or on foreign license. The history of the development of "classic" steam and diesel installations is reviewed, as are such new installations as atomic powered and gas turbine ones. Certain of the qualitative and quantitative characteristics of the various types of installations are listed for purposes of comparison. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 13,15/SUBM DATE: None

Card 1/21

SHLOV'YEV, Anatoliy Semen'yevich; RIKHTER, A.A., artcendent;  
YUZHIN, Ye. I., nauchn. red.; VLAS'YNA, Z.V., red.

[Safety measures in hull shops] Tekhnika bezopasnosti  
v korpusnykh tselakh. Leningrad, Sudostroenie, 1965.  
(MIRA 1812)  
163 p.

PASENKOVA, A.K.; RIKHTER, A.A., kand. sel'skokhoz. nauk

Breeding walnut for frost resistance in conditions of the  
Crimea. Agrobiologiya no.4:562-568 Jl-Ag '65.  
(MIRA 18:11)  
1, Gosudarstvennyy Nikitinskiy botanicheskiy sad, Yalta.

SAVCHYEV, V.S.; RIKHTEV, A.A.; SAVCHUK, B.B.; BUL'GOV, V.P.; MUL'JINOV, V.E.

Electronic heart stimulator implanted into the organism. Grud.  
khir. č no. 6:99-100 N-D '64. (MIRA 16:7)

1. Klinika fakul'tetskoy khirurgii im. S.I. Spasokukotskogo  
(direktor - akad. A.N. Bakulev) II Moskovskogo meditsinskogo  
instituta imeni N.I. Pirogova.

BRUK, Moisey Abramovich; RIKHTER, Andrey Aleksandrovich; GOL'TRAF, I.S.,  
kand.tekhn.nauk, retsenzent; ZAKHARENKO, B.A., kand.tekhn.nauk,  
retsenzent; SULOYEV, A.V., nauchnyy red.; VLASOVA, Z.V., red.;  
CHISTYAKOVA, R.K., tekhn. red.

[Operating conditions of marine diesel engines] Rezhimy raboty  
sudovykh dizelei. Leningrad, Sudpromgiz, 1963. 483 p.  
(MIRA 16:6)

(Marine diesel engines)

MOTYKO, Aleksandr Stepanovich; OSTROVSKIY, Isaak Davidovich; RIKHTER, A.A., inzh., retsentent; KHOMUTOV, K.M., kand. tekhn. nauk, dots., red.; CHFAS, M.A., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Developed sheet product surfaces] Razvertki poverkhnostei listovykh izdelii. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 94 p. (MIRA 15:1)  
(Sheet-metal work) (Surfaces (Technology))

RIKHTER, L. Ya. RIKHTER, A.A.

Using gamma rays for studying gas condensate mixtures.  
Gaz. prom. 6 no. 9:10-12 '61. (MIRA 14:12)  
(Condensate oil wells)  
(Gamma rays---Industrial applications)

L 14462-66

ACC NR: AP6002972

(N)

SOURCE CODE: UR/0286/65/000/024/0147/0148

INVENTOR: Sinitskiy, B. A.; Kuznetsov, V. M.; Vaksman, A. Z.; Ratner, A. G.; Vikhman, B. A.; Rimmer, A. I.; Dmitriyev, V. P.; Rikhter, A. A.; Zagaytov, A. P.

ORG: none

TITLE: A universal form for hulls in shipbuilding Class 65, No. 177291

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 147-148

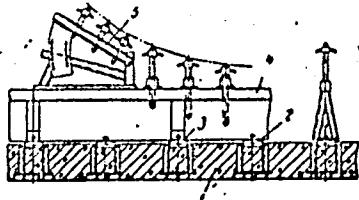
TOPIC TAGS: shipbuilding engineering, marine equipment, ship

ABSTRACT: This Author's Certificate introduces a universal form for hulls in shipbuilding. The installation includes a foundation with standard elements, e.g. beams, stands and frames in a form depending on the members which make up the hull structure. The installation is designed for convenience in assembly, efficiency in the use of production area and economy of metal. The foundation is made up of anchored longitudinal or transverse channel or angle tracks. The projecting horizontal shelves of the tracks form T-slots above the level of the foundation by the thickness of a shelf. The standard elements are made with mating sockets for fastening

UDC: 629.12.002.011 : 621.757 :  
: 621.791 : 621-783.624

Card 1/3

L 14462-66  
ACC NR: AP6002972



1 - foundation; 2 - tracks; 3 - horizontal shelves;  
4 - standard element; 5 - metal units.

Card 2/3

L 14462-66

ACC NR: AP6002972

to the angle or channel tracks. Detachable metal units are mounted on the standard elements.

SUB CODE: 13/ SUBM DATE: 12Nov64

Card 3/3

RIKHTER, A.F.

A.A. Dibrova's linear correlations for isoelectronic systems. Zhur.  
fiz. khim. 30 no.12:2808-2811 D'56. (MLRA 10:4)

l. Karlov universitet, Institut meditsinskoy khimii, Chekhoslovakija,  
Praga.  
(Valence (Theoretical chemistry)) (Electrons)

MORDKOVICH, M.S.; RIKHTER, A.O.

Fermentation activity of Moldavia grape varieties.  
Trudy MNIIIPP 5:71-74 '64. (MIRA 19:1)

MORDKOVICH, M.S.; SIROTA, M.A.; RIKHTER, A.G.; GOL'DENBERG, G.G.;  
KARLINA, N.I.

Optimum conditions for the preservation of green peas in refrigeration chambers till their processing in plants. Kons. i ov.prom.  
18 no.10:10-12 O '63. (MIRA 16:11)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

MORDKOVICH, M.S.; RIKHTER, A.G.

Establishing the norms of raw material expenditure in drying prunes.  
Kons. i ov.prom. 18 no.9:9-12 S '63. (MIRA 16:9)

1. Moldavskiy nauchno-issledovatel'skiy institut pishchevoy  
promyshlennosti.

(Prunes--Drying)

KASAVINA, B.S.; RIKHTER, A.I.; ZENKEVICH, G.D.; ARENBERG, A.A.

influence of chondroitin sulfate (chonsuridum) on the process  
of collagen formation in vivo. Biul. eksp. biol. i med. 51  
no.6:85-87 Je '61. (MIRA 15:6)

1. Iz TSentral'nogo instituta travmatologii i ortopedii Min-  
isterstva zdravookhraneniya SSSR (dir. - deystvitel'nyy chlen  
AMN SSSR N.N. Priorov [deceased]) i kafedry gistologii (zav. -  
prof. L.I. Falin) Moskovskogo meditsinskogo stomatologicheskogo  
instituta (dir. G.N. Beletskiy). Predstavlena deystvitel'nym  
chlenom AMN SSSR N.A. Krayevskim.

(CHONDROITINSULFURIC ACID)  
(COLLAGEN) (REGENERATION (BIOLOGY))

KASAVINA, B.S.; ZENKEVICH, G.D.; RIKHTER, A.I.; LAUFER, A.L.; LIRTSMAN, V.M.;  
MARKOVA, O.N.; Prinimali uchastiye: ARENBERG, A.A.; AGAPOVA, N.A.;  
SMIRNOVA, G.V.

Some enzyme-substrate systems in the process of regeneration of the  
bony tissue. Eksper. khir. i anest. 7 no.4:56-63 Jl-Ag '62.  
(MIRA 17:5)

1. Iz biokhimicheskoy laboratorii (zav. - doktor biolog. nauk  
B.S.Kasavina) TSentral'nogo instituta travmatologii i ortopedii  
(dir. - doktor med. nauk M.V.Volkov) Ministerstva zdravookhraneniya  
SSSR i kafedry gistologii (zav. - prof. L.I.Falin) Moskovskogo  
meditsinskogo stomatologicheskogo instituta.

KASAVINA, B.S.; RIKHTER, A.I.; ZENKEVICH, G.D.; ARENBERG, A.A.

Effect of chondroitin sulphate on the healing of wounds.  
Eksp. khir. i anest. 6 no.5:10-13 S-O '61. (MIRA 15:3)

1. Iz TSentral'nogo instituta travmatologii i ortopedii (dir. -  
deystvitel'nyy chlen AMN SSSR prof. N.N. Priorov [deceased])  
Ministerstva zdravookhraneniya SSSR i iz kafedry histologii (zav. -  
prof. L.I. Falin) Moskovskogo meditsinskogo stomatologicheskogo  
instituta.

(CHONDROITIN SULPHURIC ACID--THERAPEUTIC)  
(WOUNDS--TREATMENT)

RIMMER, A. I., ZENKEVICH, G. D., LAUFER, A. L., and KASAVINA, B. S. (USSR)

"The Changes in Correlation of the Components of Enzyme-Substrate Systems with Different Phases of Bone Regeneration."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

RIMMER, B.

The experience of the Polar investigator,  
Sovetskaya Arktika (Soviet Arctic), July, 1938.

RIKHTER, B.

Physics - Experiments

"Self-made equipment for physical experiments." Reviewed by N.F.Menshutin. Fiz. v shkole no. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

RIKHTER, B., Author

Rikhter, B.

"Self-made equipment for physical experiments." Reviewed by L. P. Menshutin. Fiz v. shkole, no. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

IVANOVA, Ye.N.; RIKHTER, B.V.; CHUDNOV, G.A.

Modification of Krotov's device for bacteriological analysis of  
the air. Lab. delo 10 no.5:312 '64. (MIRA 17:5)

1. Nauchno-issledovatel'skiy institut gigiyeny im. F.F.Erismana,  
Moskva.

СИДОРЕНКО, А.А.; СИДОРЕНКО, Г.А.; РУБИН, Б.Л. GIL'DENSKIOL'D, R.S.

Results of the analysis of experimental data characterizing  
the distribution of atmospheric pollution near thermal electric  
power stations. Trudy C30 no.172:43-34 '65.

(MTRA 18:2)

GOROSHKO, B.B.; GRACHEVA, V.P.; RASTORGUYEVA, G.P.; RIKHTER, B.V.;  
FEDOROV, G.A.

Meteorological observations in analyzing the industrial  
pollution of the ground layer of the atmosphere. Trudy GGO  
no.138;18-30 '63. (MIRA 17:2)

S/169/62/000/005/049/093  
D226/D307

AUTHOR: Rikhter, B. V.

TITLE: Radiation regime of Noril'sk

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 5, 1962, 19, abstract 5B132 (V sb. Gigiyen, vopr. akklimatiz. nase-  
leniya na Kraynem Severe, M., Nedgiz, 1961, 37-49)

TEXT: The solar radiation at Noril'sk is strongly weakened as a result of the contamination of the air by industrial waste products. Observations on direct, scattered, reflected, summary and ultraviolet radiation were conducted at Noril'sk from July 1957 to August 1958. The observational results show that the residential blocks in the northern part are shielded from the sun by a smokescreen, formed over the industrial undertakings of the southern part. The actual duration of sunshine comprises 1500 - 1600 hrs per annum instead of a possible total of 4566 hrs; the duration of the insolation period is shortened by two months in the industrial part and by one month in the residential part. In comparison with an

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S/169/62/000/005/049/093

D228/D307

Radiation regime of Noril'sk

ideal atmosphere the radiation intensity drops by 40.5%, of which 36.9% is due to dust impurities. The yearly summary radiation amounts to  $72 \text{ kcal/cm}^2$ , the possible total being  $117.6 \text{ kcal/cm}^2$ . In the presence of snow the albedo varies from 38 to 90%; it ranges from 30 to 35% when there is no snow. Not more than  $33 \text{ kcal/cm}^2$  per annum goes into the heating of the ground surface. The intensity of ultraviolet radiation decreases by 37% in the town's residential part and by 46% in the industrial part. The total of natural ultraviolet radiation at Noril'sk comprises 60% of the total at Murmansk. According to the calculations the aerial basin of Noril'sk contains from 18 to 25 tons of solid ingredients. 7 references. /<sup>V</sup>Abstracter's note: Complete translation.\_7

Card 2/2

RIKHTE R, D.A.

7 21  
Apparatus for absorption of gases and vapors. D. A.  
Rikhiter and E. B. Ashbel. U.S.S.R. 104,949. Feb. 25,  
1957. The app. consists of 2 concentric spheres having  
vents feeding into each other, also an injector to atomize  
the absorption liquid in the inside sphere. M. Hoseh

Chem  
phys

PM KHD  
amf

RIKHTER, B.V.

Natural ultraviolet radiation under various conditions of air  
pollution. Uch. zap. Mosk. nauch.-issl. inst. san. i gig. no.6:  
52-59 '60. (MIRA 14:11)  
(AIR POLLUTION) (ULTRAVIOLET RAYS)

TULYAKOVA, L.F.; GUMENOV, P.I.; KARAGODINA, I.L.; RIKHTER, B.V.

Sanitary and hygienic evaluation of the planning for experimental  
residential block No.9 in N.Cheremushki. Uch. zap. Mosk. nauch.-  
issl. inst. san. i gig. no.6:62-66 '60. (MIRA 14:11)  
(MOSCOW—CITY PLANNING)

RIKHTER, B.V.

Correlation between atmospheric transparency and dust pollution.  
(MIRA 10:11)  
Pred.don.kontsent.atmosf.zagr. no.2:99-107 '55.

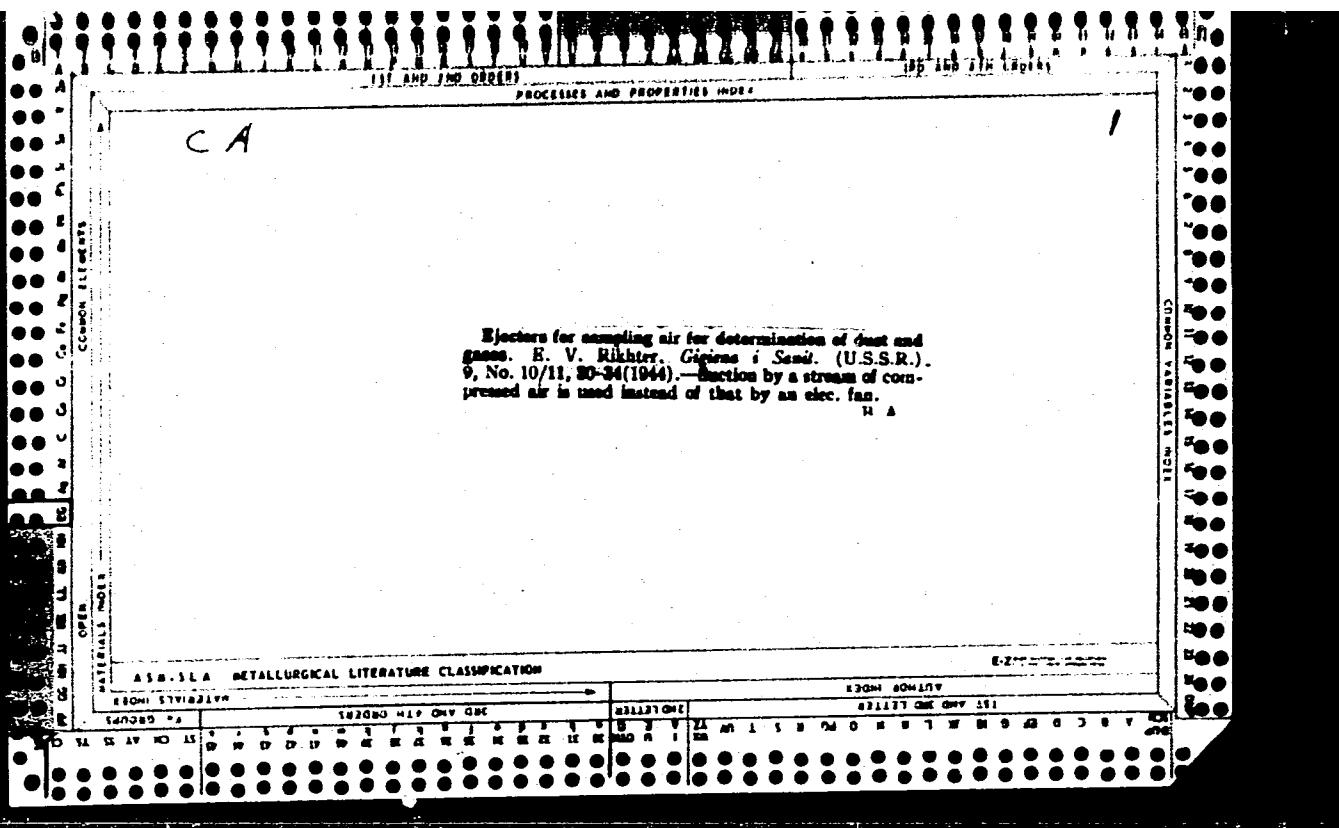
1. Iz Gosudarstvennogo tsentral'nogo nauchno-issledovatel'skogo  
sanitarnogo instituta imeni F.F.Erismana.  
(DUST) (ATMOSPHERIC TRANSPARENCY)

RIKHTER, B.V.; GIL'DENSKIOL'D, R.S.; STYAZHKIN, V.M.

Distribution of surface concentrations of sulfur dioxide and ashes  
in the vicinity of a thermal power plant. Trudy GGO no.158:84-87  
(MIRA 17:9)  
'64.

7  
C4

Rapid methods for determining trinitrophenol in com  
mercial picric acid. N. Ya. Ugnvachev and D. A.  
Rikhter. Zavodskaya Lab. 4, 1062-6 (1935). The res-  
basis of the 2 methods of detn. of  $\text{HO}_2\text{C}_6\text{H}_3\text{NO}_2$  (trini-  
trophenol) by titration with  $\text{HgNO}_3$  and by pptn. with  
ammoniated  $\text{CuSO}_4$  and iodometry. Back titration of  
excess  $\text{CuSO}_4$  in the filtrate after  $2\text{L} + \text{HgNO}_3 +$   
 $2\text{HNO}_3 + 1\text{ CuSO}_4 + 2\text{NH}_4\text{OH} = (\text{CH}_3\text{NO}_2)_2\text{Cu} + \text{NH}_4^+$   
 $\text{Hg}^{2+} + (\text{NH}_4)_2\text{SO}_4$ . Any dinitrophenol present is not  
pptd. Prep a standard soln. of  $\text{HgNO}_3$  by dissolving 20 g  
 $\text{Hg(NO}_3)_2 \cdot 2\text{H}_2\text{O}$  with 400 ml.  $\text{H}_2\text{O}$  and diluting with  $\text{HNO}_3$   
(1:2 v. of 10%  $\text{HNO}_3$ ) for each 100 cc.  $\text{HgO}$  at 20-60°.  
Decant from the undissolved residue, dissolve it in a  
little  $\text{HNO}_3$ , mix the 2 solns., dil. to 1000 cc. and stand  
and/or the soln. by titrating 0.5% soln. of picric acid until  
a drop of the supernatant soln. fails to give a dark spot on  
the test paper. Prep the test paper by adding dropwise  
1%  $\text{AgNO}_3$  to 10%  $\text{Na}_2\text{S}_2\text{O}_3$  (to a brown dissolution of the  
soln., followed by satg. filter paper with this soln. and  
dryng.). Prep a standard soln. of ammoniated  $\text{CuSO}_4$  by  
adding 200 cc. of 10%  $\text{NH}_4\text{OH}$  to 6.7 g.  $\text{CuSO}_4$  in 300 cc.  
 $\text{H}_2\text{O}$  and dilg. to 1000 cc. For the standardization of  
the soln., introduce an excess of the soln. (25 cc.) into 25  
cc. of 0.2-0.3% of picric acid (contg. 2 cc. of 10%  $\text{NH}_4\text{OH}$ ),  
shake well, filter and wash the ppt. with 0.5%  $\text{NH}_4\text{OH}$ .  
Make the filtrate slightly acid with  $\text{H}_2\text{SO}_4$  (10 cc. of 10%  
 $\text{H}_2\text{SO}_4$  add 5.8 cc. of 20%  $\text{K}_2\text{S}_2\text{O}_3$  and titrate with 0.5%  
 $\text{Na}_2\text{S}_2\text{O}_3$ ). Equally accurate results are obtained by dis-  
solving the ppt. in 5-10 cc. of dil.  $\text{HgSO}_4$  and titrating as  
above. Similar procedures are used in the detn. of 1 m  
com. picric acid.



5708. EJECTORS FOR SAMPLING AIR FOR DETERMINATION OF DUST AND GASES.  
Rikhter, E. V. (Gigiena i Sanit. (U.S.S.R.). 1944, vol. 9, (10/11)  
30-34; abstr. in Chem. Abstr., 20th June, 1948, vol. 42, 4003).  
Suction by a stream of compressed air is used instead of that  
by an electric fan.

C.A.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0014449

RYKHTER, Ye. V.

USSR/Chemistry - Analysis of Air  
Contaminants

May 51

"Ejection-Type Apparatus for Taking Air Samples,"  
Ye. V. Rykhter, Lab, Sanitary-Epidemiol Sta,  
Molotov Oblast

"Gig i San" No 5, pp 15-18

Details app operating off compressor of any truck  
which at same time serves for transporting sampling  
device. Three-ton trucks are equipped with com-  
pressors. If app is mounted on motor vehicle, it  
can take 20 air samples at various distances from  
the source of air pollution within 1 day's opera-  
tion. Device has been successfully used for detg  
air pollution in industrial areas since 1949.  
LC

186T17

BYKHOVSKIY, B.B., professor; RYKHTER, E.V., inzhener

Control of silicosis in coal mines of the Kizel' Basin. Bor'ba s  
sil. 2:194-198 '55. (MIRA 9:5)

1. Molotovskiy meditsinskiy institut i Molotovskaya oblastnaya  
sanitarno-epidemiologicheskaya stantsiya (for Rykhter)  
(KIZEL' BASIN--DUST--PREVENTION)

RYKHTER, / E.V., inzhener

Experience in developing apparatus for studying the dust factor in  
Kizel' Basin coal mines. Bor'ba s sil. 2:219-222 '55. (MLRA 9:5)

1. Molotovskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya  
(KIZEL' BASIN-- MINE DUST) (DUST COLLECTORS)

RYKHTER, E.V., inzhener

Experience in controlling dust in the mine of the Kizel Coal Basin.  
Gig. i san. 21 no.8:41-45 Ag '56. (MLRA 9:11)

1. Iz Molotovskoy oblastnoy sanitarno-epidemiologicheskoy stantsii  
(DUST

coal dust, control in coal mines)  
(INDUSTRIAL HYGIENE  
control of coal dust in coal mines)

RYKHTER, E.V. (Molotov); ZAGULYAYEV, M.A. (Molotov); KARTYSHEV, A.A.  
(Molotov).

Physical and chemical properties of the dust of metallic magnesium alloys in connection with the solution of ventilation problems. Vod, i san. tekhn. no.3:25-27 Mr '57. (MLRA 10:6)  
(Dust--Removal) (Magnesium alloys)

RIKHTER, G., inzh. (Germanskaya Demokraticeskaya Respublika); MAREK, D.,  
inzh. (Germanskaya Demokraticeskaya Respublika)

Erecting multistory industrial buildings by using sliding forms.  
Prom. stroi. 40 no.8:54-57 Ag '63. (MIRA 16:8)  
(Concrete construction--Formwork)

REMITTER, L. A.

Rikhter, S. A. - "Extra-projection methods of operative approaches to the peripheral nerve trunks," In symposium: VIII Sessiya Neurokhirurg. soveta i Leningr. in-ta neurokhirurgii (Izdat. med. nauk SSSR), Moscow, 1946, p. 230-40.

V. I. V. (1946, No. 6) (Izv. Akad. Nauk SSSR, Ser. Med., No. 1, 1947).

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35454. Klinicheskaya anatomiya legkikh i slevy. V sb: Voprosy prudnoy  
Khirurgii. T. Sh. M., 1949, s. 53-64

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RIKHTER, G. A.

"Local Anesthesia in Cases Where Kidneys Have to be Transplanted," Khirurgiya,  
No.5, 1949

First Surgical Dept., Central Clinical Hosp., M.M. Means of Communication

RIKHTER, G.A.

Pain and analgesia from the viewpoint of Pavlov's teaching;  
preliminary report. Khirurgiia, Moskva no.4:3-6 Apr 1951.  
(CIML 20:9)

1. Of the Department of Topographic Anatomy and Operative Surgery (Head--Prof. G.A.Rikhter), Medical Institute imeni Pavlov in Ryazan' and of the First Surgical Division TsKB of the Ministry of Works of Communication (Head of Hospital-- Prof. N.A. Obrovskiy; Head of First Surgical Division-- Prof. G.A. Rikhter).

RIKHTER, G.I.

Pain and anesthesia from the point of view of Pavlov's teaching.  
(CIML 20:8)  
Vest. khir. 71 no.69-70 1951.

1. RIKHTER, G. A., Prof.
2. USSR (600)
4. Medicine
7. Report on the 4th plenary joint meeting of the Board of the All-Union Society of Surgeons and the Ukrainian Society of Surgeons, held in Kief 9/26-9/29/51. Khirurgiia. No. 9, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

1. RIKHTER, G. A., Prof.
2. USSR (600)
4. Gunshot Wounds
7. Gunshot wounds of the peripheral nerves and their therapy. Khirurgia no. 10 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

ANICHKOV, M.N., dots.; ANTELAVA, N.V., prof.; BISENKOVA, N.P., kand. med. nauk; BOGUSH, L.K., prof.; GRIGOR'YEV, M.S., prof.; DYSKIN, Ye.A., kand. med. nauk; KEVESH, Ye.L., prof.; KOLESOV, A.P.; KOLESOV, V.I., prof.; KUPRIYANOV, P.A., prof.; LINBERG, B.E., prof.; MAKSIMENKOV, A.N., prof.; OSIFOV, B.K., prof.; SAVITSKIY, A.I., prof.; UVAROV, B.S.; UGLOV, F.G., prof.; KHOLDIN, S.A., prof.; PETROVSKIY, B.V., prof., otv. red.; BAKULEV, A.N., akademik, red.; GUILAYEV, A.V., prof., red.; YEGOROV, B.G., prof., red.; PANKRAT'YEV, B.Ye., prof., red.; PYTEL', A.Ya., prof., red.; RIKHTER, G.A., prof., red.; FILATOV, A.N., prof., red.; CHAKLIN, V.D., prof., red.; RYBUSHKIN, I.N., doktor med. nauk, red.; RULEVA, N.S., tekhn. red.

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2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Kupriyanov, Petrovskiy, Yegorov).  
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